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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,481	06/30/2000	Paul Warren Poole	24850A	2284

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EXAMINER
MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
1772	6

DATE MAILED: 04/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/607,481	Applicant(s) POOLE ET AL.
	Examiner Michael C. Miggins	Art Unit 1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4-5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1 recites the limitation "said heat reflective material layer" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation, "...heat/sound...", it is not clear whether applicant is claiming "heat and sound" or "heat or sound", appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2, 6, 8-10, and 12, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn et al. (U.S. Patent No. 6,093,481) in view of Nelson (U.S. Patent No. 4,985,106).

Lynn et al. teach an acoustical and thermal insulator (column 1, lines 5-12, column 3, lines 50-55), comprising a multiplayer composite including a first facing

material, a polymer based blanket layer (column 2, lines 30-40, column 4, lines 35-50), insulation encapsulated by said facing material and said polymer based blanket material (column 3, lines 25-40), wherein said first facing layer is constructed from a heat reflective metallic foil having a thickness of between substantially 0.5-5.0 mil (column 2, lines 30-40, column 3, lines 39-40), wherein said polymer based blanket layer is selected from a group of materials consisting of polyester, polyolefin, polyethylene, cotton shoddy, nylon, rayon, acrylic, natural fibers including kenaf and hemp, and combinations thereof with and without melt blown microfibers (column 2, lines 30-40), further including a second facing layer (column 4, lines 35-50), wherein said second facing layer is selected from a group of materials consisting of polyester, polypropylene, rayon, nylon, glass, metal foil and mixtures thereof (column 2, lines 30-40), wherein said first facing layer and second facing layer includes a heat activated adhesive to secure said first facing layer to said polymer based blanket layer, wherein said heat activated adhesive is selected from a group of materials consisting of thermoplastic sheet, thermoplastic web, hot melt, latex and heat activated resins (column 4, lines 9-22) (applies to instant claims 1-2, 6, 10, 12-17).

Lynn et al. disclose applicant's invention substantially as claimed. However, Lynn et al. fail to disclose an insulation insert encapsulated by said heat reflective material layer and said polymer based blanket layer, wherein said insulation insert is selected from a group of materials consisting of fiberglass, foam, polymer based blanket material, natural fiber based blanket material and combinations thereof, wherein said

insulation insert is positioned at selected locations in said insulator to provide shielding of heat/sound sources.

Nelson teach an insulation insert encapsulated within an insulation matrix (43 and 44 a-b from Fig. 3) between two facing materials (41 and 42 from Fig. 3) (column 8, lines 43-68), wherein said insulation insert is selected from a group of materials consisting of fiberglass, foam, polymer based blanket material, natural fiber based blanket material and combinations thereof (column 8, lines 1-5), wherein said insulation insert is positioned at selected locations in said insulator to provide shielding of heat/sound sources (column 7, lines 58-68) (applies to instant claims 1 and 8-9) in an insulation panel for the purpose of providing improved noise, vibration and heat insulation in a single insulation pad (column 4, lines 1-40).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided an insulation insert encapsulated by said heat reflective material layer and said polymer based blanket layer, wherein said insulation insert is selected from a group of materials consisting of fiberglass, foam, polymer based blanket material, natural fiber based blanket material and combinations thereof, wherein said insulation insert is positioned at selected locations in said insulator to provide shielding of heat/sound sources in the insulation panel of Lynn et al. in order to provide improved noise, vibration and heat insulation in a single insulation pad as taught or suggested by Nelson.

6. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn et al. (U.S. Patent No. 6,093,481) in view of Nelson (U.S. Patent No. 4,985,106), as

applies to claims 1-2, 6, 8-10, and 12-17 above, and further in view of Gluck et al. (U.S. Patent No. 4,438,166).

The combined teachings of Lynn et al. and Nelson disclose applicant's invention substantially as claimed. However, said combined teachings fail to disclose said metallic foil includes a reinforcement, wherein said metallic foil reinforcement is selected from a group consisting of a fibrous scrim, a fibrous mat and a fibrous web, wherein said reinforcement is made from glass fiber threads arranged in a criss-cross pattern.

Gluck et al. teach said metallic foil includes a reinforcement (column 3, lines 29-41), wherein said metallic foil reinforcement is selected from a group consisting of a fibrous scrim, a fibrous mat and a fibrous web, wherein said reinforcement is made from glass fiber threads arranged in a criss-cross pattern (column 4, lines 24-49) (applies to instant claims 3-5) in a thermal insulating application of a multi-layer laminate (see abstract) for the purpose of providing improved toughness and impact resistance (column 12, lines 25-35).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a metallic foil includes a reinforcement, wherein said metallic foil reinforcement is selected from a group consisting of a fibrous scrim, a fibrous mat and a fibrous web, wherein said reinforcement is made from glass fiber threads arranged in a criss-cross pattern and wherein said second facing layer includes a scrim in the insulating panel of Lynn et al. in order to provide improved toughness and impact resistance as taught by Gluck et al..

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn et al. (U.S. Patent No. 6,093,481) in view of Nelson (U.S. Patent No. 4,985,106), as applies to claims 1-2, 6, 8-10, and 12-17 above, and further in view of Nomizo et al. (U.S. Patent No. 5,366,678).

The combined teachings of Lynn et al. and Nelson disclose applicant's invention substantially as claimed. However, said combined teachings fail to disclose the polymer based blanket layer includes a relatively high density section and relatively low density section.

Nomizo et al. teach a compression molding process of a thermofusible fibrous (thermoplastic fibers) blank including, inserting said blank in a mold and applying pressure and heat to a specific region such that said thermoplastic fiber in said specific region melts, hence the density and hardness in said specific region (column 1, lines 45-56 and column 2, lines 9-25). It is submitted that an increased hardness results in an increased rigidity. Nozimo et al. specifically teach that such localized heating allows for an increased density and hardness (rigidity) in said areas which results in a more versatile and improved product (column 1, lines 45-56 and column 2, lines 9-25).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided the polymer based blanket layer includes a relatively high density section and relatively low density section in the insulating panel of Lynn et al. in order to provide more versatile and improved product as suggested by Nomizo et al..

8. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn et al. (U.S. Patent No. 6,093,481) in view of Nelson (U.S. Patent No. 4,985,106), as applies to claims 1-2, 6, 8-10, and 12-17 above, and further in view of Altenberg (U.S. Patent No. 6,096,416).

Lynn et al. teach a first facing layer and/or second facing layer is treated with a fire retardant, a biocide and/or a colorant (column 3, lines 49-63) (applies to instant claim 13).

The combined teachings of Lynn et al. and Nelson disclose applicant's invention substantially as claimed. However, said combined teachings fail to disclose a second facing layer including scrim.

Altenberg teach a facing layer including scrim (column 9, lines 38-60) in an insulating panel for the purpose of providing improved mechanical properties and flame resistance (column 2, lines 25-60).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a second facing layer including scrim in the insulating panel of Lynn et al. for the purpose of providing improved mechanical properties and flame resistance as taught or suggested by Altenberg.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (703) 305-0915. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

MCM
April 5, 2002

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/5/02